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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,484	04/22/2004	William W. Shumway	HALB:052	7357
<div>Karen B. Tripp Attorney at Law P.O. Box 1301 Houston, TX 77251-1301</div>				
7590 12/12/2007			EXAMINER FIGUEROA, JOHN J	
			ART UNIT 1796	PAPER NUMBER
			MAIL DATE 12/12/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/829,484

Applicant(s)

SHUMWAY, WILLIAM W.

Examiner

John J. Figueroa

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 16-79 is/are pending in the application.
- 4a) Of the above claim(s) 38-56 and 62-79 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 16-37 and 57-61 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/23/07, 6/18/07 & 9/25/07</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. Receipt is acknowledged of a request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e) and a submission (amendment), filed on October 2, 2007. The request has been deemed proper and this application has been hereby examined in view of said amendment.

Response to Amendment

2. The 35 U.S.C. 103 rejection of claims 1-14, 16-37, 57 and 59-61 as unpatentable over United States Patent Number (USPN) 5,990,050 to Patel et al., hereinafter 'Patel', in view of "Amphiphilic Copolymers" to Perrin, hereinafter 'Perrin', is maintained for the reasons previously made of record in items 3 and 8 on pages 2 and 3, respectively, of the Final Office Action mailed April 2, 2007, hereinafter 'FOA'.

3. The 35 U.S.C. 103 rejection of claim 58 as unpatentable over Patel in view of "Crude Oil Emulsions: A State of the Art Review" to Kokal, hereinafter 'Kokal' is maintained for the reasons previously made of record in items 4 and 9 on pages 2 and 7, respectively, of FOA.

Response to Arguments

The 35 U.S.C. 103 Rejection over Patel and Perrin (items 3 and 8 of OA)

4. Applicant's arguments with respect to the 35 U.S.C. 103(a) rejection of claims 1-14, 16-37, 57 and 59-61 as unpatentable over Patel in view of Perrin have been fully considered but deemed unpersuasive.

Claim 1 has been amended to include the molecular weight limitation previously presented in claim 15 (now cancelled) and addressed previously in FOA. Applicant has further amended independent claims 1, 17, 26 and 57 to recite physical characteristics for the composition, such as the emulsifier being substantially absorbed at the oil water interface of the emulsion. However, because the compositions encompassed by the instant claims, and that of the instant prior art, are the same compositions, they should possess the same physical characteristics, such as hydrophobic/hydrophilic absorption properties.

In response to Applicant's arguments that VERSACOAT® and NOVAMUL®, disclosed in Patel as examples of a wetting agent/emulsifier for use in the composition, can also act as surfactants (and not just emulsifying agents), these emulsifiers are examples of a preferred embodiment in Patel. "Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments." *In re Susi*, 440 F.2d 442, 169 USPQ 423 (CCPA 1971). A reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art, including nonpreferred embodiments. *Merck & Co. v.*

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Biocraft Laboratories, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), *cert. denied*, 493

U.S. MPEP 2123

Patel expressly discloses in col. 5, lines 11-21 the composition comprising a wetting agent and emulsifiers and further proceeds to list exemplary emulsifiers suitable for the composition followed by a separate list of surfactants that can be used for the same composition.

"Wetting agents and emulsifiers that may be suitable for use in this invention include, crude tall oil, oxidized crude tall oil, surfactants, organic phosphate esters, modified imidazolines and amidoamines, alkyl aromatic sulfates and sulfonates, and the like, and combinations or derivatives of these. Versawet.RTM. and Versacoat.RTM. and Novamul are *examples of commercially available emulsifiers* manufactured and distributed by M-I, L.L.C. that may be used in this invention. Silwet L-77, L-7001, L7605 and L-7622 are *examples of commercially available surfactants and wetting agents* manufactured and distributed by Union Carbide Chemical Company Inc." [Emphasis added by Examiner.]

Accordingly, it is expressly clear from the cited disclosure that Patel contemplated the composition containing emulsifiers that are distinct from surfactants. Examiner also notes that independent claims 1 and 12 in Patel limit the composition to contain an emulsifier and does not require a surfactant. Thus, Patel contemplated embodiments wherein the disclosed fluid composition does not require the invert-emulsion to contain a surfactant." [Emphasis added.]

Furthermore, as discussed previously in FOA, paragraph [0030] on page 13 of the Applicant's specification discloses:

"[0030] Other types of emulsion additives ... optionally may be added to the emulsion compositions of the present invention including, but not limited to, weighting agents, **wetting agents**, fluid

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loss agents, viscosifying agents, thinning agents, lubricants, anti-oxidants, ***surfactants that are suitable for a purpose other than stabilizing an emulsion***, corrosion inhibitors, scale inhibitors, and the like.

When used in certain applications, the emulsion compositions of the present invention may include particulates such as proppant or gravel. One of ordinary skill in the art with the benefit of this disclosure will recognize the appropriate type of additive for a particular application." [Emphasis added]

Therefore, because Patel discloses the emulsifying agent can be, e.g., a wetting agent (or other non-surfactant emulsifying agent) and Applicant's specification discloses wetting agents (and some surfactants) as an example of an emulsion additive for the claimed invention, then Patel meets the "surfactant-free" limitation of the instant claims as they are interpreted in accordance with the Applicant's specification.

In response to Applicant's argument that Perrin is nonanalogous art, as discussed in FOA, Patel is drawn to water-soluble invert *emulsions* (see title). Perrin teaches a new route to prepare ordered monodisperse *emulsions* (see title). Accordingly, a person of ordinary skill in the art would look to scientific/technical journal articles regarding emulsion technology to solve problems regarding the use/application of emulsions in industries, such as in oil drilling technology. Examiner notes again that Applicant listed the Perrin reference on page 5, lines 10-11 in the Information Disclosure Statement filed July 19, 2004.

Concerning Perrin teaching the polymeric emulsifier for a different use and that Perrin "is not concerned with improving emulsion stability [in oil drilling]", the fact that Applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. &

Inter. 1985). Perrin teaches advantages of macromolecule emulsifiers over surfactants ("teaching away" from the use of surfactants) and suggests to one skilled in the art to combine Patel with Perrin, to provide a resultant uniform and stable emulsion as discussed in item 8 of FOA.

Thus, the instant claims remain unpatentable over Patel and Perrin.

The 35 U.S.C. 103 rejections over Patel, Perrin and Kokal (items 4 and 9 of FOA)

5. Applicant's arguments with respect to these 35 U.S.C. 103 rejection of claim 58 as unpatentable over Patel in view of Perrin, and further in view of Kokal, have been fully considered but deemed unpersuasive.

As discussed in FOA, Patel does not expressly disclose the composition comprising a breaker. Kokal teaches breakers are commonly used in the art for chemical demulsification. Kokal, in combination with Patel, thus supplies this missing limitation regarding the breaker because it is suggested in the art to do so to provide effectiveness in producing fluids. (See, OA, page 9, lines 1-11)

As discussed in item 9 of FOA, Kokal was cited as a secondary reference to show the commonality of adding a breaker to a drilling/treatment fluid in the oil field art. Whether or not Kokal uses said breaker for a different purpose as argued by Applicant (i.e., crude oil emulsions in Kokal as opposed to the emulsion-based drilling and well treatment fluids of the instant invention) is not relevant as to whether it would have been obvious to a person skilled in the art, at the time of the instant invention, to add a

breaker to the composition disclosed in Patel due to the commonality of using breakers to demulsify an emulsion/foam in oil drilling/treatment fluids as taught by Kokal.

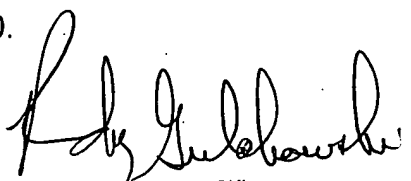
Thus, the claims remain unpatentable over Patel, Perrin and Kokal.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Figueroa whose telephone number is (571) 272-8916. The examiner can normally be reached on Monday-Thursday 8:00-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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